

Claims:

1. (Currently Amended) An enclosure for hermetically sealing a microsystem, wherein the microsystem is located on a substrate, the enclosure comprising:
a single-piece cover having walls and a top, wherein the walls and the top are each made of a continuous piece of material; and
a solder preform interposed between the single-piece cover and the substrate in order to facilitate creating a hermetically sealed cavity defined by the single-piece cover and the substrate for enclosing the microsystem.
2. (Original) The enclosure as set forth in claim 1, wherein the single-piece cover includes a layer of gold-plating over a layer of nickel-plating.
3. (Original) The enclosure as set forth in claim 2, wherein the layer of gold-plating is approximately at least 0.000075inches in thickness, and the layer of nickel-plating is approximately at least 0.000050inches in thickness.
4. (Original) The enclosure as set forth in claim 1, wherein the solder preform has a thickness of approximately 0.003inches.
5. (Original) The enclosure as set forth in claim 1, wherein the solder preform has a composition of approximately 80% gold and 20% tin.

6. (Currently Amended) An enclosure for hermetically sealing a microsystem, the enclosure comprising:

a substrate whereupon is located the microsystem;

a single-piece cover having walls and a top, wherein the walls and the top are each made of a continuous piece of material; and

a single solder preform interposed directly between the single-piece cover and the substrate in order to facilitate creating a hermetically sealed cavity defined by the single-piece cover and the substrate for enclosing the microsystem.

7. (Original) The enclosure as set forth in claim 6, wherein the single-piece cover includes a layer of gold-plating over a layer of nickel-plating.

8. (Original) The enclosure as set forth in claim 7, wherein the layer of gold-plating is approximately at least 0.000075inches in thickness, and the layer of nickel-plating is approximately at least 0.000050inches in thickness.

9. (Original) The enclosure as set forth in claim 6, wherein the solder preform has a thickness of approximately 0.003inches.

10. (Original) The enclosure as set forth in claim 6, wherein the solder preform has a composition of approximately 80% gold and 20% tin.

11. (Currently Amended) An enclosure for hermetically sealing a microsystem, the enclosure comprising:

a substrate whereupon is located the microsystem;

a single-piece cover having walls and a top, wherein the walls and the top are each made of a continuous piece of material, and wherein the single-piece cover includes a layer of gold-plating that is approximately 0.000075inches in thickness over a layer of nickel-plating that is approximately 0.000050inches in thickness; and

a single solder preform having a thickness of approximately 0.003 inches and a composition of approximately 80% gold and 20% tin, wherein the solder preform is interposed directly between the single-piece cover and the substrate in order to facilitate creating a hermetically sealed cavity defined by the single-piece cover and the substrate for enclosing the microsystem.